

mention of germanium by Van Ngo is a fleeting reference to germanium as a possible alloying metal with the copper (see column 4, line 16).

The layer 30 is created by treating the copper or copper alloy 13A with an ammonia-containing plasma to improve adhesion. The ammonia-containing plasma treatment is for the purpose of roughening the copper surface (see column 4, lines 39-44) and removing copper oxides (column 4, lines 54-59) from the copper surface.

Joshi does not overcome the above discussed deficiencies of Van Ngo with respect to rendering obvious the present invention. Joshi discloses forming a Cu_3Ge phase or Cu_xGe_y alloy to provide corrosion resistance.

No motivation exists for combining Joshi with Van Ngo since Joshi does not relate to improving adhesion and it is not at all apparent from Joshi that adhesion could or would be improved. From the cited art, a person skilled in the art would not have any idea how or even whether the suggestions in Joshi would effect adhesion. Persons skilled in the art could not even predict that these suggestions would not cause the adhesion to deteriorate.

Moreover, the process of Van Ngo would apparently not be in need of improved corrosion resistance since the treatment therein is to remove copper oxide. Accordingly, it would not be obvious to combine teachings from Joshi in the process of Van Ngo.

Claim 30 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Van Ngo in view of Joshi and further in view of the admitted prior art of employing silicon oxides

Claim 30 is deemed to be patentable for at least those reasons discussed above as why claim 15 is patentable.

The mere fact that cited art may be modified in the manner suggested by the Examiner does not make this modification obvious, unless the cited art suggest the desirability of the modification. No such suggestion appears in the cited art in this matter. The Examiner's attention is kindly directed to *In re Lee* 61 USPQ2d 1430 (Fed. Cir. 2002) *In re Dembiczak et al.* 50 USPQ2d. 1614 (Fed. Cir. 1999), *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984), *In re*

Laskowski, 10 USPQ2d. 1397 (Fed. Cir. 1989) and *In re Fritch*, 23 USPQ2d. 1780 (Fed. Cir. 1992).

In *Dembiczak et al.*, *supra*, the Court at 1617 stated: "Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See, e.g., *C.R. Bard, Inc., v. M3 Sys., Inc.*, 157 F.3d. 1340, 1352, 48 USPQ2d. 1225, 1232 (Fed. Cir. 1998) (describing 'teaching or suggestion motivation [to combine]' as in 'essential evidentiary component of an obviousness holding'), *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d. 1453, 1459 (Fed. Cir. 1998) ('the Board must identify specifically...the reasons one of ordinary skill in the art would have been motivated to select the references and combine them');..."

Also, the cited art lacks the necessary direction or incentive to those of ordinary skill in the art to render under 35 USC 103 sustainable. The cited art fails to provide the degree of predictability of success of achieving the properties attainable by the present invention needed to sustain a rejection under 35 USC 103. See *Diversitech Corp. v. Century Steps, Inc.* 7 USPQ2d 1315 (Fed. Cir. 1988), *In re Mercier*, 185 USPQ 774 (CCPA 1975) and *In re Naylor*, 152 USPQ 106 (CCPA 1966).

Moreover, the properties of the subject matter and improvements which are inherent in the claimed subject matter and disclosed in the specification are to be considered when evaluating the question of obviousness under 35 USC 103. See *Gillette Co. v. S.C. Johnson & Son, Inc.*, 16 USPQ2d. 1923 (Fed. Cir. 1990), *In re Antonie*, 195, USPQ 6 (CCPA 1977), *In re Estes*, 164 USPQ (CCPA 1970), and *In re Papesch*, 137 USPQ 43 (CCPA 1963).

No property can be ignored in determining patentability and comparing the claimed invention to the cited art. Along these lines, see *In re Papesch*, *supra*, *In re Burt et al.* 148 USPQ 548 (CCPA 1966), *In re Ward*, 141 USPQ 227 (CCPA 1964), and *In re Cescon*, 177 USPQ 264 (CCPA 1973).

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

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